



AECOM 651 222 0841 tel  
First National Bank Building 651 222 8914 fax  
332 Minnesota Street, Suite  
E1000  
St. Paul, Minnesota 55101  
www.aecom.com

March 15, 2010

President  
Vertellus Specialties, Inc.  
300 North Meridian Street, Suite 1500  
Indianapolis, Indiana 46204-1763  
Attn: John Jones, Director, Regulatory Management

Regional Administrator  
USEPA Region 5  
Mail Code HSR-6J  
77 West Jackson Boulevard  
Chicago, Illinois 60604  
Attn: Matt Ohl

Director, Remediation  
Site Remediation Section  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155  
Attn: Nile Fellows

**Subject: United States of America, et al. vs. Reilly Tar & Chemical Corporation, et al.  
File No. Civ. 4-80-469  
Consent Decree – Park K**

Gentlemen:

Enclosed is the 2009 Annual Progress Report submitted pursuant to Park K of the Consent Decree in the above captioned matter. This report is issued by the City in accordance with Section 2(a) of the Reilly/St. Louis Park Agreement (Exhibit B to the Consent Decree).

Any questions regarding this submittal can be directed towards this office.

Sincerely,

William M. Gregg  
Project Leader for the  
City of St. Louis Park

cc: Scott Anderson, City of St. Louis Park

Enclosure

**2009 ANNUAL PROGRESS REPORT  
ON THE  
IMPLEMENTATION OF THE CONSENT DECREE**

**SUBMITTED TO THE**

**REGIONAL ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V**

**EXECUTIVE DIRECTOR  
MINNESOTA POLLUTION CONTROL AGENCY**

**BY**

**THE CITY OF ST. LOUIS PARK, MINNESOTA**

**PURSUANT TO  
CONSENT DECREE - PART K**

**UNITED STATES OF AMERICA, ET AL.**

**VS.**

**REILLY TAR & CHEMICAL CORPORATION, ET AL.**

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA  
CIVIL NO. 4-80-469**

**MARCH 15, 2010**

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## 1. INTRODUCTION

The Consent Decree in United States of America, et al. vs. Reilly Tar & Chemical Corporation, et al. (U.S. District Court, Minnesota, Civil No. 4-80-469) was signed by Judge Magnuson on September 3, 1986, and entered by the Court on the following day. The effective date of the Consent Decree is therefore September 4, 1986 (see Part EE of the Consent Decree).

The Consent Decree requires various actions to be taken by Reilly Industries, Inc. (now know as Vertellus Specialties, Inc. but referred to in this report as (Reilly), the City of St. Louis Park (City), the United States Environmental Protection Agency (USEPA), the Minnesota Pollution Control Agency (MPCA), and/or the Minnesota Department of Health (MDH). These actions are required by the Consent Decree itself, by the Remedial Action Plan (CD-RAP) (Exhibit A to, and an integral and enforceable part of the Consent Decree, per Part F thereof), or by an Agreement between Reilly and the City (Reilly/City Agreement) (Exhibit B to, and an integral and enforceable part of the Consent Decree, per Part Q thereof, as to the rights and responsibilities between Reilly and the City).

This Annual Progress Report (Report) submitted in accordance with the requirements of Part K of the Consent Decree describes actions taken to implement the requirements of the Consent Decree from January 1 through December 31, 2009. This Report also describes activities scheduled for calendar year 2010, as required by Part K. Two other annual reports are required and are submitted by March 15<sup>th</sup> of each year under separate cover. The Annual Monitoring Report presents all chemical analyses and water level measurements for that calendar year that are not presented in other reports. The second annual report is the Annual Performance Report for the granular activated carbon treatment system. That report discusses chemical analyses and pumping requirements for Municipal wells SLP10 or SLP15 and for SLP4.

As an aid to the reader in following the progress of the many activities involved, this Report provides separate descriptions of completed and scheduled activities required by the Consent Decree (Report Sections 2.0 and 3.0, respectively) and by the CD-RAP (Report Sections 4.0 and 5.0, respectively). Within each section, areas of activity are discussed in the order in which they are discussed in the Consent Decree and CD-RAP.

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## 2. COMPLETED CONSENT DECREE ACTIVITIES

Part K of the Consent Decree requires that Reilly submit annual progress reports to the USEPA and MPCA by March 15, which describe actions taken to implement the requirements of the Consent Decree during the previous year and describe activities scheduled for the year in which the report is released. The City, on behalf of Reilly, submitted the 2008 Annual Progress Report on March 15, 2009, pursuant to the requirements of Part K, of the Consent Decree. To date, no response has been received from the Agencies regarding the 2008 Annual Progress Report.

Part L of the Consent Decree requires all notices, correspondence, and reports forwarded from one party to another to be delivered by certified mail or equivalent receipt. During 2008, it was established during a conference call that electronic mail may be used as an acceptable option for official Reilly Site correspondence. A City letter dated October 23, 2008 documented this method for all future correspondence. Hard copies of reports will be submitted to the Agencies via regular mail. Return mail-receipt will no longer be necessary.

Part O of the Consent Decree states that Reilly, the City, the USEPA, or the MPCA may change its designated Project Leader and alternate by notifying the other Parties, in writing, of the change. No notifications were made during 2009.

Part Y of the Consent Decree requires Reilly to provide the USEPA and MPCA with current certification of insurance for certain specified coverage. Reilly wrote the USEPA and MPCA on July 7, 1987, to request that the excuse granted to Reilly on October 7, 1986, from meeting certain notification requirements for insurance cancellation is extended to July 1, 1988. The USEPA and MPCA approved this request on September 9, 1987. On March 28, 1991, Reilly submitted certificates of insurance for liability coverage; indicating excess coverage was in place. Reilly submitted information in partial compliance with Part Y and informed the Agencies that reasons necessitating an excuse continued to be valid, thereby causing it to request further extension of the excuse (relating to the language of the insurance certificates).

Part Z of the Consent Decree requires Reilly to deliver to the United States and the State of Minnesota by May 31 of each year, a certificate prepared by Reilly's certified public accounting firm which sets forth whether Reilly's consolidated performance is in accord with the requirements established in the Consent Decree.

Reilly has completed a Stipulation and Order to amend Part Z of the Consent Decree. All parties of the Consent Decree have signed the document, and Judge Magnuson signed it on November

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5, 1999. Reilly will demonstrate future financial assurance, by May 31 of each year, by certifying that Reilly satisfies the requirements of 40 C.F.R. §264.143(f).

The Agencies' letter dated November 20, 2008 required Reilly to provide a "letter of credit, surety bond, or other assurance deemed acceptable" within 30 days. A December 12, 2008 letter from Reilly stated that the letter had been received and that a 90-day extension was required to produce the requested information. Reilly and the Agencies exchanged numerous letters regarding this issue in 2009, however, as of December 31, 2009, no resolution had been reached.

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### 3. SCHEDULED CONSENT DECREE ACTIVITIES

Part P of the Consent Decree addresses the issue of securing access agreements to conduct the various activities contemplated in the CD-RAP. In the past, the City has commenced negotiations with various parties from whom access authorization must be obtained based upon the content of Agency correspondence dated May 3, 1989. Said correspondence approved a revision in access agreement language for certain properties owned by the Minneapolis Parks and Recreation Board; however, the Agencies indicated they would review each agreement on a case-by-case basis. Accordingly, individual negotiations will be initiated with each affected property owner whereon the City must perform Consent Decree related activities in 2009 in an effort to secure similar agreements to those which were approved by the Agencies on May 3, 1989. No additional access agreements were made during 2009.

Part Q of the Consent Decree acknowledges the Reilly/City Agreement as Exhibit B to, and an enforceable part of the Consent Decree. Section 2 of the Reilly/City Agreement provides that by September 3, 1990, if necessary to avoid sanitary sewer charges on the discharge from wells W23, the Drift-Platteville Aquifer source control wells and gradient control well, Reilly shall plan, obtain necessary permits for, and construct a treatment facility and piping to allow effluent from the wells to be discharged to a storm sewer. As noted in Section 2 of the 1991 Annual Progress Report, a treatment facility was made operational in 1991, treating water discharged from wells W23, and the Drift-Platteville Aquifer source control wells (W420 and W421). To date, no decision has been made on the disposition of the discharge from the Drift Aquifer gradient control well (W439), or the St. Peter Aquifer gradient control well (W410).

Section 9 of the Reilly/City Agreement provides for the payment by one party of costs incurred by the other party or the sharing by the parties thereto of costs incurred by one party in the implementation of the CD-RAP. Within 30 days of the close of the calendar quarter, in which the costs were incurred, the party incurring the costs shall issue a detailed statement of costs, including supporting documentation, and within 30 days of receipt of such notice, the owing party shall pay to the other its share of the costs. It is anticipated the parties will respond to said submittals in accordance with the provisions of the Reilly/City Agreement, or any other agreement between the City and Reilly.

Part T of the Consent Decree addresses compliance with all applicable local, state, and federal laws and regulations when implementing the Consent Decree. Among its provisions is the requirement that the USEPA and MPCA approve any facility used for off-site disposal of hazardous substances generated during work undertaken pursuant to the Consent Decree. If



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either Reilly or the City proposes to use a facility in 2010, the Agencies must confirm the status of the facility before the shipment of hazardous wastes commences.

Part Z of the Consent Decree currently requires Reilly to deliver to the United States and the State of Minnesota by May 31, 2010, a certificate prepared by Reilly's certified public accounting firm which sets forth whether Reilly's consolidated performance is in accord with the requirements set forth in the Consent Decree amended on November 5, 1999.

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## **4. COMPLETED REMEDIAL ACTION PLAN ACTIVITIES**

Progress continued in the implementation of the CD-RAP during 2009. Operation of source and gradient control wells occurred throughout the year, impacting flows in the Prairie du Chien-Jordan Aquifer (W23, SLP4 and SLP10/15), St. Peter Aquifer (W410) and the Drift-Platteville Aquifer (W420, W421, and W439). In addition, monitoring of the Mount Simon-Hinckley, Ironton Galesville, Prairie du Chien-Jordan, St. Peter, and Drift-Platteville Aquifers was completed. Table 4-1 summarizes the progress made in completing the required activities in the CD-RAP. Further details on the CD-RAP activities are provided below.

### **4.1 CD-RAP Section 2**

Section 2.4 of the CD-RAP requires all wells installed, reconstructed or abandoned in compliance with the requirements of the RAP must be in accordance with all applicable provisions of the MDH well code. The notification of and approval by the Commissioner is required. No wells were installed, abandoned, or reconstructed during 2009.

### **4.2 CD-RAP Section 3**

Section 3.3 of the CD-RAP requires Reilly to submit annual Sampling Plans to the USEPA and MPCA by October 31 of that year for the following year. Section 2(a) of the Reilly/City Agreement provides that the City assume all of Reilly's obligations under Section 3 of the CD-RAP. The 2009 Sampling Plan was reviewed by the Agencies and a request was outlined in a March 6, 2009 letter. Further details of this letter pertaining to the QAPP are discussed below.

On October 12, 2009, a letter outlining the proposed groundwater monitoring changes was submitted in response to an email submitted by the Agencies on September 29, 2009. The Agencies requested an additional 18 carcinogenic compounds should be added to the 2010 Sampling Plan. On October 30, 2009, the City submitted the 2010 Sampling Plan. No response has been received from the Agencies regarding the 2010 Sampling Plan. The sampling plans will continue to be submitted on October 31 each year, in accordance with Section 3.3 of the CD-RAP.

The sampling plans have historically contained a current version of the QAPP. In a letter dated October 23, 2008, the City de-coupled these documents to be submitted separately. The QAPP will now be submitted annually June 30. The Agencies requested a revised QAPP in a March 6, 2009 letter. The City requested an extension and it was granted in an April 15, 2009 Agency letter. The City submitted the 2010 QAPP on April 23, 2009. The Agencies approved the QAPP

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in a letter dated June 3, 2009. On June 30, 2009, the City submitted a revised QAPP for 2010. This revision included the addition of a priority pollutant PAH analysis into the QAPP.

Section 3.4 of the CD-RAP requires Reilly to submit an Annual Monitoring Report to the USEPA and MPCA containing the results of all monitoring during the previous calendar year. The City submitted the 2008 Annual Monitoring Report on behalf of Reilly on March 16, 2009. No response has been received from the Agencies regarding the 2008 Annual Monitoring Report.

#### **4.3 CD-RAP Section 4**

The City operated the granular activated carbon (GAC) treatment system for municipal wells SLP10/15 in substantial compliance with Section 4.2 of the Remedial Action Plan (RAP) during 2009. A summary of the 2009 monthly pumping data is presented on Table 4-2. The City will forward the 2009 GAC system monitoring report to the Agencies by March 15, 2010, in accordance with CD-RAP Section 4.3.5.

Municipal wells SLP10/15 pumped without incident during 2009. SLP 10/15 pumped a total of 207 million gallons from January through early September. SLP 10 was then taken offline and SLP15 pumped in its place. Pumping data for SLP 15 was not available for 2009. The CD-RAP required minimum annual pumping rate of 200 million gallons per year was met in 2009.

In accordance with Section 4.3.5 of the CD-RAP the annual report of the results of all GAC system monitoring completed in 2008 was reported on March 15, 2009.

#### **4.4 CD-RAP Section 5**

Section 5.1 of the CD-RAP requires Reilly to monitor the City's Mt. Simon-Hinckley Aquifer wells on an annual basis. Section 2(a) of the Reilly/City Agreement provides that the City complete this task on behalf of Reilly. The City completed the Mt. Simon-Hinckley Aquifer monitoring in compliance with Section 5.1 of the CD-RAP, and the results have been presented in the Annual Report issued in accordance with Section 3.4 of the CD-RAP.

#### **4.5 CD-RAP Section 6**

Section 6.1.3 of the CD-RAP requires Reilly to pump well W105 at a monthly average rate of 25 gallons per minute (gpm) until such time as the well's discharge is in compliance with cessation criteria contained in Section 6.1.5. On December 4, 1991, the Agencies authorized the City to discontinue the pumping of well W105, and on December 13, 1991, the well was shut down.

Section 6.1.4 of the CD-RAP requires Reilly to monitor well W105 on a biannual basis (i.e. even numbered years). Section 2(a) of the Reilly/Tar Agreement provides that the City complete this

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task on behalf of Reilly. The City completed the monitoring in accordance with Section 6.1.4 of the CD-RAP. Follow-up monitoring was completed will in 2009. This was required after concentrations of total PAH exceeded the cessation criteria in the 2008 sample. Results of this sampling are included in the Annual Monitoring Report. W105 will be sampled again in 2010.

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## 4.6 CD-RAP Section 7

Section 7.1.3 of the CD-RAP requires Reilly to pump W23 at a monthly average rate of 50 gpm. Section 2(a) of the Reilly/City Agreement provides that the City operate W23 beginning the day pumping is started. A summary of the 2009 monthly pumping data is presented on Table 4-3. The monthly average flow rate ranged from 35 gpm to 84 gpm with a monthly average for 2009 of 54.4 gpm. W23 operates at its maximum capacity year round.

Section 7.2.7 of the CD-RAP requires Reilly to pump SLP4 at 300 gpm from May through September and at 900 gpm (or as near as practicable) during the months of October through April (an annual average of 650 gpm). Section 2(a) of the Reilly/City Agreement provides that the City assume this obligation for Reilly. A summary of the 2009 monthly pumping data is presented on Table 4-4. The City achieved an average monthly pumping rate of 976 gpm during 2009.

Section 7.3 of the CD-RAP requires Reilly to monitor the Prairie du Chien-Jordan Aquifer as specified in Section 3 of the CD-RAP. Section 2(a) of the Reilly/City Agreement provides that the City will assume this obligation for Reilly. The City, in compliance with Sections 3 and 7.3 of the CD-RAP completed monitoring of the aquifer. Information relative to the monitoring can be found in the 2009 Annual Report to be submitted pursuant to Section 3.4 of the CD-RAP.

Section 7.4 of the CD-RAP outlines all submittals outlining any modifications to the gradient control system for the Prairie du Chien-Jordan aquifer. A January 22, 2008 letter outlining a revised gradient control plan was submitted in response to the Agencies November 15, 2007 letter. This plan was revised and re-submitted on April 14, 2008. The work plan was approved by the Agencies in a September 23, 2008 letter with a few recommended modifications. The modifications were incorporated into the plan and the City submitted a letter on October 23, 2008 with a revised schedule. PCJ groundwater monitoring continued in 2009, and the City is preparing a report for submittal to the Agencies in 2010.

Groundwater modeling has indicated that well SLP6 might be an effective addition to the Prairie du Chien-Jordan Aquifer gradient control system, if needed. However, the immediate need for pumping well SLP6 has not been demonstrated. In preparation for the need to activate SLP6 the City has obtained a NPDES permit for discharging well SLP6 to Minnehaha Creek. If monitoring data indicates the need for modifications to the gradient control system, then the City will begin pumping well SLP6.

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#### **4.7 CD-RAP Section 8**

Section 8.3 of the CD-RAP authorizes the USEPA and MPCA to require Reilly to install and operate a gradient control well system for the purpose of preventing the further spread of ground water exceeding any of the Drinking Water Criteria defined in CD-RAP Section 2.2 in the St. Peter Aquifer. Section 2(a) of the Reilly/City Agreement provides that the City complete this task on behalf of Reilly. In response to April 1, 1991, correspondence from the Agencies on the issue, the City placed W410 in service on May 30, 1991.

A summary of the 2009 W410 pumping data is presented in Table 4-5. Table 4-5 indicates well W410 was pumped in compliance with the CD-RAP and the yearly average pumping rate for well W410 was 45.3 gpm.

Monitoring of St. Peter Aquifer monitor wells occurred in accordance with the provisions of the 2009 Sampling Plan. These data and a report on the effectiveness of well W410 as a gradient control well can be found in the 2009 Annual Report to be submitted pursuant to Section 3.4 of the CD- RAP.

#### **4.8 CD-RAP Section 9**

Section 9.1.3 of the CD-RAP requires Reilly to operate the Drift-Platteville Aquifer source control wells at a monthly rate of 25 gpm and monitor them on a quarterly basis. Section 2(a) of the Reilly/City Agreement provides that the City operate the wells beginning the day pumping is started and monitor them as required. Accordingly, the City has operated the wells and has performed necessary periodic inspections as outlined in a plan approved under Section 9.1.1 of the CD-RAP.

Summaries of the 2009 monthly pumping data for wells W420 and W421 are presented in Tables 4-6 and 4-7, respectively. Well W420 maintained an average monthly pumping rate of 50.1 gpm while the average pumping rate for W421 was 12.2 gpm for 2009. Well W421 was out of service from January through April 2009. When operating during 2009, these two pumping wells were in compliance with Section 9.1.3 of the CD-RAP.

Monitoring of the Drift-Platteville Aquifer source control wells occurred on a quarterly basis pursuant to the requirements of Sections 3.2 and 9.1.3 of the CD-RAP. A report of the results can be found in the 2009 Annual Report issued pursuant to Section 3.4 of the CD-RAP.

Section 9.7.1 of the CD-RAP allows Reilly (and the City) to request the Agencies to approve modifications to the Drift-Platteville Aquifer source control well system. A City letter dated August 7, 2008 included the work plan for recovering dense non-aqueous phase liquids (DNAPL) from source control well W421. An Agencies letter dated November 19, 2008 conditionally approved

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the work plan with some required modifications. A City letter dated February 13, 2009 outlined the revised work plan. DNAPL has not been found in recoverable amounts in well W421 during 2009.

In accordance with CD-RAP, Sections 9.2.3 and 9.5.1, the City began pumping well W439 (the Northern Area Drift Aquifer Gradient Control well) at 50 gpm in January 1996. A summary of the 2009 pumping data of the Northern Area Drift Aquifer Gradient Control well is presented in Table 4-8. Well W439 pumped at a monthly average rate of 42.3 gpm in 2009.

Monitoring of the Northern Area Drift Aquifer Gradient Control well occurred on a quarterly basis pursuant to the requirements of Sections 3.2 and 9.2.3 of the CD-RAP. A report of the results can be found in the 2009 Annual Report issued pursuant to Section 3.4 of the CD-RAP.

In accordance with CD-RAP, Section 9.7.2, the City began pumping well W434 on June 10, 1997. In a letter dated January 23, 2006, the City requested approval from the Agencies for cessation of pumping at well W434. The cessation request was based upon four components:

1. Cessation Concentrations
2. Compliance with gradient control objectives
3. Assessment of contaminant spreading
4. Criteria to resume gradient control pumping.

In a letter dated March 17, 2006, the Agencies, in accordance with Section 9.2, approved the cessation of W434. Monitoring of well W434 was completed in accordance with the 2009 Sampling Plan.

#### **4.9 CD-RAP Section 10**

Section 10.1.1 and 10.2.1 of the CD-RAP requires Reilly to submit to the USEPA, MPCA and MDH a plan for investigating certain multi-aquifer wells that may be adversely affecting the Mt. Simon-Hinckley, Ironton-Galesville, Prairie du Chien-Jordan and St. Peter Aquifers.

On July 6, 1995, the MPCA issued a letter to the City and Reilly, regarding review of the report for Leaking Deep Multi-Aquifer Wells and St. Peter Aquifer Multi-Aquifer Wells. In these reports, the City stated that no further St. Peter and Deep Multi-Aquifer wells are believed to exist in the study area which would require abandonment. The Agencies' July 6, 1995 letter approved both of these reports. No further work is required at this time.

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#### **4.10 CD-RAP Section 11**

Section 11.5.1 of the CD-RAP requires the City to prepare a plan which addresses, among other things, actions to place an adequate soil and vegetative cover as needed to prevent soil erosion on city parks on the Site. The City performed routine maintenance on city parks in 2009.

#### **4.11 CD-RAP Section 12**

The Utility Superintendent has the responsibility to review all data upon receipt from the laboratory and to notify the Project Leader and Agencies of all exceedences of the Drinking Water Criteria in any municipal well, as outlined in Section 12.1.1 of the CD-RAP. Municipal well sampling results match historic levels of PAH, namely no detectable carcinogenic PAH, and concentrations of Other PAH are below the Drinking Water Criteria. No exceedences to the Drinking Water Criteria occurred in a municipal well in 2009.



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## **5. SCHEDULED REMEDIAL ACTION PLAN ACTIVITIES**

Table 5-1 summarizes the expected schedule for CD-RAP activities during 2010. Many of the schedule dates cannot be established definitely because they depend on Agency review, inspection, and approval. Ground water monitoring is an essential ongoing task.

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## **6. NON CD-RAP ACTIVITIES**

This section summarizes actions taken in 2009 that fell outside the requirements of the CD-RAP. On April 1, 2009, the Agencies requested that the City and Reilly prepare a QAPP and sampling plan for a soil vapor survey (Vapor Intrusion Study). Several response letters regarding this issue were submitted by the City, Reilly, and the Agencies in 2009. Additionally, all parties held a conference call on May 29, 2009 and a planning meeting on July 13, 2009.

A Vapor Intrusion Study Sampling Plan was submitted by the City on August 3, 2009. The Agencies' letter dated November 4, 2009 requested some revisions to this plan. The City submitted a revised Vapor Intrusion Study on November 17, 2009. A response from the Agencies was provided in 2010 and will be discussed in the 2010 Progress Report.

**TABLE 4-1****Status of Remedial Action Plan Activities - 2009**

<b>RAP Section</b>	<b>Item</b>	<b>Activities</b>
2.4	Well Construction and Abandonment	No wells were constructed or abandoned in 2009.
3.2./3.3	2009 Annual Sampling Plan	Plan submitted by the City on October 31, 2008. Agencies issued a letter on March 6, 2009 regarding the 2009 plan.
3.2./3.3	2010 Annual Sampling Plan	Plan submitted by the City on October 30, 2009. No response has been received from the Agencies.
3.4	2008 Annual Monitoring Report	Report submitted by the City on March 16, 2009. No response has been received from the Agencies.
4.2	Operation of SLP10/15 and GAC System Operation	The City operated the GAC system in compliance with the CD-RAP. SLP10/15 pumped without incident during 2009. The annual minimum of 200 million gallons was exceeded.
4.3	GAC System Monitoring	Samples were collected as outlined in the 2009 Sampling Plan.
4.3.5	2008 GAC Annual Report	Report submitted by the City on March 16, 2009. No response has been received from the Agencies.
5.1	Mt.-Simon Hinckley Aquifer Monitoring	Completed as outlined in the 2009 Sampling Plan.
6.1.4	W105 Monitoring	Samples collected in 2009. Well is sampled biannually during even numbered years (i.e. 2008, 2010, 2012).
7.1.3	Operation of W23	Well W23 was operated in compliance with the CD-RAP.
7.2.7	Operation of SLP4	SLP4 operated in compliance with the CD-RAP.
7.3	Prairie du Chien-Jordan Aquifer Monitoring	Completed as outlined in the 2009 Sampling Plan.
7.4.1	Gradient control system modifications in the Prairie du Chien-Jordan Aquifer	The City is preparing a report on PCJ water levels for submittal in 2010.
8.1.3	St. Peter Aquifer monitoring	Completed as outlined in 2009 Sampling Plan.
8.3	Operation of W410	Well W410 was operated in compliance with the CD-RAP.

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**TABLE 4-1****Status of Remedial Action Plan Activities - 2009**

<b>RAP Section</b>	<b>Item</b>	<b>Activities</b>
9.1.3	Operation/monitoring of Drift-Platteville Aquifer source control wells, W420 and W421	Wells were in compliance with CD-RAP when operating in 2009.
9.2.3	Operation/monitoring of Drift-Platteville Aquifer gradient control well W422	In accordance with the Agencies' approval letter dated October 3, 2000, pumping of W422 was discontinued in October 2000.
9.5.1	Operation of W439	Well W439 was operated in compliance with the CD-RAP.
9.6	Drift-Platteville Aquifer monitoring	Completed as outlined in the 2009 Sampling Plan.
9.7.1	Drift-Platteville Aquifer source control well system	A City letter dated February 13, 2009 outlined the revised work plan. DNAPL has not been found in recoverable amounts in well W421 during 2009.
9.7.2	Platteville Aquifer Gradient control Well W434	An MPCA letter dated March 17, 2006 approved the cessation of pumping at well W434. Semi-annual monitoring was completed during 2009.
11.5.1	Development of the site	No development of the site occurred in 2009.
12.1.1	Exceedence of advisory levels	No exceedences of the advisory levels or drinking water criteria occurred in any municipal wells in 2009.

**TABLE 4-2**

**SLP 10/15 2009 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	27,094,000	606.9
February	26,254,000	651.1
March	31,683,000	709.7
April	13,546,000	313.6
May	17,649,000	395.4
June	10,291,000	238.2
July	34,164,000	765.3
August	38,164,000	854.9
September	8,102,000	187.5
October	-	0.0
November	-	0.0
December	-	0.0
<b>TOTAL</b>	<b>206,947,000</b>	<b>393.6</b>

**TABLE 4-3**

**W23 2009 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	2,439,420	54.6
February	2,223,650	55.2
March	2,463,910	55.2
April	2,294,180	53.1
May	1,558,950	34.9
June	2,171,230	50.3
July	2,259,500	50.6
August	2,264,700	50.7
September	2,030,400	47.0
October	2,232,000	50.0
November	2,928,410	67.8
December	3,743,220	83.9
<b>TOTAL</b>	<b>28,609,570</b>	<b>54.4</b>

TABLE 4-4

## SLP4 2009 Pumping Data

Month	Total Gallons Pumped	Monthly Average Flow Rate Gallons Per Minute
January	44,582,000	998.7
February	39,801,000	987.1
March	25,354,000	568.0
April	29,584,000	684.8
May	45,030,000	1008.7
June	43,177,000	999.5
July	46,855,000	1049.6
August	48,588,000	1088.4
September	46,161,000	1068.5
October	48,272,000	1081.4
November	47,031,000	1088.7
December	48,579,000	1088.2
<b>TOTAL</b>	<b>513,014,000</b>	<b>976.0</b>

TABLE 4-5

## W410 2009 Pumping Data

Month	Total Gallons Pumped	Monthly Average Flow Rate Gallons Per Minute
January	2,208,020	49.5
February	2,017,980	50.0
March	2,233,550	50.0
April	2,225,260	51.5
May	2,159,940	48.4
June	1,964,570	45.5
July	1,919,910	43.0
August	1,780,030	39.9
September	1,759,240	40.7
October	1,875,260	42.0
November	1,796,020	41.6
December	1,860,360	41.7
<b>TOTAL</b>	<b>23,800,140</b>	<b>45.3</b>

TABLE 4-6

## W420 2009 Pumping Data

Month	Total Gallons Pumped	Monthly Average Flow Rate Gallons Per Minute
January	2,225,700	49.9
February	1,998,430	49.6
March	2,186,410	49.0
April	2,121,250	49.1
May	2,154,160	48.3
June	2,224,770	51.5
July	2,342,430	52.5
August	2,325,000	52.1
September	2,167,050	50.2
October	2,204,410	49.4
November	2,116,340	49.0
December	2,266,240	50.8
<b>TOTAL</b>	<b>26,332,190</b>	<b>50.1</b>

TABLE 4-7

## W421 2009 Pumping Data

Month	Total Gallons Pumped	Monthly Average Flow Rate Gallons Per Minute
January	-	0.0
February	-	0.0
March	-	0.0
April	-	0.0
May	661,910	14.8
June	770,900	17.8
July	802,630	18.0
August	815,500	18.3
September	783,930	18.1
October	806,450	18.1
November	983,900	22.8
December	805,310	18.0
<b>TOTAL</b>	<b>6,430,530</b>	<b>12.2</b>

TABLE 4-8

W439 2009 Pumping Data

Month	Total Gallons Pumped	Monthly Average Flow Rate Gallons Per Minute
January	1,723,470	38.6
February	1,856,730	46.0
March	2,016,690	45.2
April	1,902,390	44.0
May	1,870,510	41.9
June	1,853,430	42.9
July	1,835,470	41.1
August	1,824,370	40.9
September	1,752,720	40.6
October	1,847,030	41.4
November	1,827,510	42.3
December	1,920,680	43.0
<b>TOTAL</b>	<b>22,231,000</b>	<b>42.3</b>



**TABLE 5-1****Expected Remedial Action Plan Activities - 2010**

<b>RAP Section</b>	<b>Item</b>	<b>Expected Timetable</b>
3.3	Sampling Plan for 2010	The City expects to receive approval on the 2010 Sampling Plan from the Agencies.
3.3	Sampling Plan for 2011	City to submit plan October 31, 2010
3.3	QAPP submittal	City to submit QAPP June 30, 2010
3.4	2009 Annual Monitoring Report	City to submit report March 15, 2010
4.2	Operation and Maintenance of the GAC System at Wells SLP10 and 15	Ongoing
4.3	GAC Plant Monitoring	Continued monitoring in accordance with the RAP
4.3.5	2009 GAC Annual Report	City to submit report March 15, 2010
5.1	Mt. Simon-Hinckley Aquifer Monitoring	Refer to 2010 Sampling Plan
6.1.4	W105 Monitoring	W105 will be sampled in 2010.
7.1.3	Operation of W23	Ongoing
7.2.7	SLP4 Operation	Ongoing
7.3	Prairie du Chien-Jordan Aquifer Monitoring	Refer to 2010 Sampling Plan.
7.4.2	PCJ Aquifer gradient control system modifications.	If monitoring results indicate that PAH are spreading down gradient, then the City will pump well SLP6.
8.1.3	St. Peter Aquifer Monitoring	Refer to 2010 Sampling Plan
8.3	St. Peter Aquifer Remedial Action Gradient Control Well Operation - W410	Refer to 2010 Sampling Plan
9.1.3	Operation and monitoring Drift-Platteville Aquifer Source Control Wells, W420 and W421	Refer to 2010 Sampling Plan. The operations may be modified due to the presence of DNAPL, in accordance with an ongoing investigation.
9.3.3	Drift-Platteville Aquifer Monitoring	Refer to 2010 Sampling Plan
9.5.1	Operation and monitoring of Drift Aquifer Gradient Control Well - W439	Ongoing
9.6	Drift-Platteville Aquifer Monitoring	Refer to 2010 Sampling Plan
9.7.2	Operation and monitoring Platteville Aquifer Gradient Control Well -W434	An MPCA letter dated March 17, 2006 approved the cessation of pumping at well W434. Semi-annual monitoring is scheduled for 2010.
11.5	Development Plan and Site Maintenance	Ongoing
12.1	Contingent Monitoring	Ongoing, if necessary.